

Bacterial Infections

[Name of the Writer]

[Name of the Institution]

## Bacterial Infections

### Introduction

Bacteria are unicellular living organism that comprises of one cell only. They cannot be seen by the human eye and can appear in microscope only. There are many different types of bacteria. They are classified according to the diseases they cause. They may differ from each other in shapes and sizes and are of many different shapes as, look like balls, rods or spirals. Many of the bacteria do not hurt and are used for the production like cheese and yoghurt but there are infections that are also caused by the bacteria known as Bacterial Infections.

### Discussion

Bacterial infections are caused by introducing the bacteria into the body of an individual. One of the characteristics of the bacteria is that, they reproduce themselves quickly in to the body of a person, damaging the tissues of the body and causing sickness. Bacteria give off the chemical called toxins that are introduced in the body of a person. Harmful bacteria those are responsible for causing the bacterial infections are known as pathogenic bacteria. They also become the cause of diseases that are life threatening, like bacteremia, which is also known as blood poisoning, failure of kidneys and toxic shock syndrome (Collier, et.al, 1998).

They most common type bacteria that are responsible for causing infections are Streptococcus, Staphylococcus, and E-coli. The most common infections that are caused by the bacteria are known as diarrhea, pneumonia, skin and urinary tract infections, and blood and surgical site infections. For example, Campylobacter jejuni is an inflectional bacterium that causes diarrhea and has been the cause of mortality in the past (Slonczewski & Foster, 2011). The

symptoms that exhibit the presence of pathogenic bacteria in the body are different depending upon the infection and the type of the bacteria. The most common symptom of the bacterial infection is fever. It may also resemble to the symptoms of colitis, influenza, and viral infections (Dalhoff, 1999).

Serious bacterial infections can be life threatening causing many diseases like Respiratory Infections, Gastrointestinal Infection and Skin Infection. Although every human being is at the high risk of the bacteria due to the interaction with the different types of people and spaces, but still there are few factors that increase the certainty and the risk factor of bacterial infections. These infections depend up on the nutritional status, age and genetic predisposition. Infant, children and the older people are more vulnerable to the bacterial infections than any other. For example, it is observed that elder people with age more than 60, are at the higher risk of the respiratory infections. Similarly the nutritional status of a person addresses the immunity value (Dalhoff, 1999). Body requires many vitamins and proteins that increase the immunity value of a person. This consequently increases the immunity for the germs that grow and affect a person inside a body.

Antibiotics is the main source of treatment for the bacterial infections and since it was discovered (1940), it has saved the life of many people. Similarly, the mechanism of the antibiotics depends upon factors like drug distribution, immune status of the host, resistance etc. For example, vancomycin and penicillin are the antibiotics that reduce the formation of bacterial cell walls. So bacteria can cause serious disease as well as mild diseases to an individual.

### **Conclusion**

When the antibiotics were discovered they effectively healed and cured many diseases but now all the antibiotics are not as effective due to increased drug resistance. Therefore, keeping the nutritional status in better condition and improving hygienic conditions can help to fight the bacterial infections.

### References

Collier, L., Hausler, W. J., & Topley, W. W. (1998). *Bacterial infections* (9. ed.). London [u.a.:

Arnold.

Dalhoff, A. (1999). *Bacterial infections*. Basel, Switzerland: Karger.

Slonczewski, J., & Foster, J. W. (2011). *Microbiology: an evolving science* (2nd ed.). New York:

W.W. Norton.